AD-A215 363

IMPLEMENTATION OF ORGANIZATIONAL
CHANGE IN THE AIR FORCE:
A CASE STUDY

THESIS

Ronald D. Taylor
First Lieutenant, USAF

AFIT/GLM/LSR/89S-66

DEPARTMENT OF THE AIR FORCE

AIR UNIVERSITY

# AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

89 12 13 022

AFIT/GLM/LSR/89S-66

IMPLEMENTATION OF ORGANIZATIONAL
CHANGE IN THE AIR FORCE:
A CASE STUDY

THESIS

Ronald D. Taylor
First Lieutenant, USAF

AFIT/GLM/LSR/89S-66

DTIC
ELECTE
DEC 14 1989
S B D

The contents of the document are technically accurate, and no
sensitive items, detrimental ideas, or deleterious information is
contained therein.  Furthermore, the views expressed in the
document are those of the author and do not necessarily reflect
the views of the School of Systems and Logistics, the Air
University, the United States Air Force, or the Department of
Defense.

AFIT/GLM/LSR/89S-66

IMPLEMENTATION OF ORGANIZATIONAL CHANGE

IN THE AIR FORCE:

A CASE STUDY

THESIS

Presented to the Faculty of the School of Systems

and Logistics of the Air Force Institute of Technology

Air University

In Partial Fulfillment of the

Requirements for the Degree of

Master of Science in Logistics Management

Ronald D. Taylor, B.S., M.S.

First Lieutenant, USAF

September 1989

## Acknowledgement

The completion of this project would not have been possible without the support of my wife, and my fellow students in the Air Force Institute of Technology, Class 89S.

In particular, I would like to express a word of gratitude to my Thesis Advisor, Major Kenneth R. Jennings, whose advice and academic assistance proved invaluable to my studies.

## Table of Contents

## List of Tables

AFIT/GLM/LSR/89S-66

ABSTRACT

The ever changing defense environment requires
Department of Defense organizations to change and evolve
with the mission requirements, while incurring decreased
funding and manpower allocations.

This research is a study of the total quality
management initiatives implemented by the Logistics
Operation Center (LOC) and Material Management (MM)
organizations within the Headquarters, Air Force Logistics
Command. In particular, it addresses the planning tactics
employed by LOC and MM when implementing major changes to
the organizational structure, hierarchy, and specific areas
of organizational responsibility to facilitate total quality
management.

Currently, a lack of concise mission goals, objective
performance evaluation tools, and organizational
cohesiveness plague the most recent restructuring of both
LOC and MM. Research findings indicate the need to clearly
define organizational and individual roles and
responsibilities, in addition to involving effected
personnel in the change process.

The value of this study stems from an ongoing research
effort at the Air Force Institute of Technology.

Recommendations  r future research projects include:
(1) an investigation of factors that create employee and/or
management resistance to change; (2) an inspection of why
employees respond differently to given management
implementation tactics; and, (3) an investigation of
specific employee motivational factors within the Air Force
organization.

IMPLEMENTATION OF ORGANIZATIONAL CHANGE

IN THE AIR FORCE:

A CASE STUDY

## I.   Introduction

### Overview

This chapter discusses the rationale for this re-
search project.  It contains background information on
the organizational structure of the Logistics Operation
Center (LOC) and Material Management (MM) organizations
within the Headquarters, Air Force Logistics Command
(HQ, AFLC), and the total quality management initiatives
employed by LOC and MM leaders to improve overall
organization effectiveness and efficiency.  Finally, the
specific research problem, scope and limitations, and
definition of terms relevant to this study are presented.

### Background

The Material Management (MM) and Logistics Operation
Center (LOC) are divisions of HQ, AFLC which operate inter-
dependently in many areas of weapons system logistic support
in order to accomplish their respective missions.  MM has a
functional structure and its purpose is to develop material
management policy and procedures for the Air Logistics

Centers (ALCs) and the Major Commands (MAJCOMs). The primary function of the LOC is to provide weapon system guidance and logistics support information for users of those systems.

Both MM a.id LOC have undergone two major reorganizations in the past six years. Together with the following factors, this has led to confusion over who has responsibility for key mission processes. MM and LOC managers report:

1. Communication problems between LOC and MM.

2. Lack of clearly defined objectives in either division.

3. Overlap in the functions of the two divisions.

Further, there is a lack of continuity between LOC and MM in areas of responsibility and authority. Apparently, some similar functions are carried out by both LOC and MM, and in a few cases key mission processes may actually be duplicated.

A major reorganization effort, dubbed "Pacer Stride," was commenced in 1983 to introduce weapon systems logistics management, followed more recently by several organizational restructuring efforts.

Problem Statement

Air Force agencies like MM and LOC are faced with expanding mission requirements as new weapon systems become operational, and the enhanced need to improve operational

efficiency and resource utilization as Department of Defense funding is decreased.

This study investigates how MM and LOC proposes and implements total quality management (TQM) efforts to improve overall effectiveness and efficiency. Relevant to this issue is the degree of employee participation in the change and decision-making process, and an understanding of the various tactics available to management when implementing change. These issues will be discussed further in the literature review.

## Scope and Limitations

Given that organizational change is a way of life in the Air Force community, the problem solving process used by the MM and LOC leadership to resolve the problems previously stated will be addressed.

Specific objectives and ivestigative questions for this research project are:

1. Understand the functional organization of HQ, AFLC, particularly LOC and MM, and how this may impact mission accomplishment.

2. Understand the TQM planning process used by MM and LOC to develop mission statements for both LOC and MM.

   a. Identify the major processes LOC and MM use to achieve their mission.

b.  Identify root causes of discord between LOC and MM and the steps taken by the respective management teams to resolve them.

3.  Provide suggestions on how LOC and MM can improve interoperability based on the TQM planning method.

4.  Provide suggestions on how other Air Force organizations could use the TQM planning process.

Only perceptions of attitudes regarding individual roles or improvements in key mission processes will be addressed.  No attempt will be made to examine the issue of manpower or structural reorganization.


## Definition of Terms

In this study it is important that the author and reader agree on some specific points.  The following definitions apply:


1.  Organizational change:  Any change that affects the organization's internal environment (e.g., policy or procedural changes, redefining organizational goals or missions).

2.  Implementation tactic:  The approach adopted by management to enact a specific change.  There are four key tactics discussed throughout this thesis--intervention, participation, persuasion, and edict (25:230).

3. Material management: A process of managing people, dollars, and facilities that ensures the best and most appropriate use and allocation of resources in adherence to Air Force and AFLC policy.

4. Critical success factor: A group of things that have to go well in order for the organization to successfully achieve its mission (e.g., customer satisfasction, and effective resource use).

5. Key mission processes: The routine tasks which must take place to assure accomplishment of a specific critical success factor.

6. Process owner: The single individual or office with responsibility to define, measure, control, and improve an entire process.

7. Total Quality Management: The process whereby management identifies the critical success factors relevant to the organization, selects key processes that facilitate the management of the critical success factors, and select actions to optimize performance of those processes (14).

5

## II. Literature Review

### Overview

Understanding the underlying problems facing MM and LOC requires a framework of knowledge about participatory management and the role of total quality management in today's high performance organization. Also, it is important to recognize the various implementation tactics available to the management of a public sector organization and how they are used to install change and improve processes.

Change is vital to the survival of many organizations today, particularly the defense industry (11:37). To facilitate this change requires a corporate culture, or sense of values among the organization's personnel, responsive to change. Additionally, an organization's management team must be able to plan and implement change using the appropriate leadership styles discussed in this literature review. Harvey and Brown discuss an organization's adaptation to a changing environment:

> A major challenge facing organizations today is to manage effectively. When an organization fails to change, the cost of that failure may mean survival. Since the environment is composed of systems outside the immediate influence of the organization, the organization must attempt to adapt itself to these forces by introducing internal changes that will allow the organization to be more effective. To be successful, organizations must develop a management style that will adequately handle the challenges and opportunities which they face. A management style

6

that was adequate under one set of conditions may become progressively less effective under changing circumstances. (11:37)

This chapter discusses the concepts and practice of organization development useful to achieve the flexibility and responsiveness discussed above. It includes an overview of the total quality management philosophy, followed by a discussion of participatory management and implementation tactics.

## Total Quality Management

Although MM and LOC do not call their quality initiative "total quality management," many of the attributes of total quality management and MM and LOC's objectives, are the same. An innovation that currently being used throughout the Air Force Logistics Command is the Quality for People, Process, Product and Performance program (QP4). According to Jacobs, QP4 is based on the statistical analysis techniques developed by W. Edwards Deming. Jacobs further states:

> QP4 involves changing the whole organizational philosophy to make continuous improvements in quality and productivity a way of life for every- one. QP4 also requires genuine participation from the workforce, and the willingness to respond to that participation on the part of management.(13:2)

Total quality management is a way of conducting busi- ness where the customer's needs guide the organization's actions. According to Carolyn Burstein (3:122), there are

four key attributes of total quality management:

1) Customer orientation

2) Emphasis on teamwork

3) Performance measures

4) Accountability

Customer orientation requires an organization to identify who the customer is--internal and external--and what their expectations are. To build organizations that focus on quality products and service, Perry (23:30-34) suggests a three step process:

1) Determine the customer's definition of quality and their expectations.

2) Design systems that allow individual departments and employees to meet the customer's expectations.

3) Design statistical measures to evaluate the organization's performance.

The emphasis on teamwork among organizations practicing total quality management recognizes the role and strength dedicated team effort can bring to a particular problem or customer need. At IBM, for example, management teams are typically made up of managers, a member of the board of directors, and a divisional vice-president. Often a team project is undertaken because something has happened, but they may also be proactive. The basic purpose for the team is to "identify goals and the activities critical to their attainment, and provide a way to measure success" (10:112).

While team development plays an integral part in the quality initiative, American business has been led to believe that workers make the best team members. However, Persico believes this is a myth and recommends building quality improvement teams on four major premises:

1) Ongoing management involvement and leadership are essential for the effective performance of work teams. Management must empower teams, provide key resources, select and train personnel, and help identify key processes for improvement.

2) Work teams are sociotechnical systems. A team requires a sound infrastructure to function effectively. This infrastructure is based on an explicit set of guidelines and ground rules that provides direction and focus for the completion of all tasks related to the team's mission and purpose.

3) A work team needs effective team leadership. The most effective comes from a successful blending of the diverse skills and personalities of all team members.

4) Team members need skills training in process analysis, statistical process control, and unstructured problem solving. Team members should not be expected to produce continuous improvement in processes and products without the skills to do so. (24:33-34)

Performance measures range from objective employee evaluations to customer feedback. An interesting concept of team building is the open forum where ideas and innovations can be discussed and implemented without fear of reprisal in the event of failure. Total quality management thrives on creativity and initiative, which only follows the elimination of the zero-error mentality that inhibits creative input to the organization. Consider the anecdote of an IBM

manager's failure:

> When a young IBM executive took a risk that
> turned out badly and cost the company ten
> million dollars, IBM president Tom Watson,
> Sr., called the man into his office.  The
> young man said, "I guess you want my resig-
> nation."  Watson replied, "you can't be se-
> rious.  We've just spent ten million dollars
> educating you."  (26:41)

The idea of encouraging creativity and risk taking also
ties in with the accountability element of Burstein's total
quality management attributes.  This is where identifying
single process owners responsible for achieving critical
success factors is crucial.  Within the matrix organization
accountability and control of key mission processes can
easily be lost, particularly in an organizations similar to
MM and LOC where authority and responsibility boundaries are
vague and often overlap (14).  To prevent a failure to meet
a critical success factor, managers must assign single
owners to each of the key processes which contribute to the
critical success factor.

Beyond Burstein's attributes, the total quality
management concept must instill the values of customer
service as a product within the corporate culture.  In-
stilling this value into the organization need not be a
difficult task.  Lawton makes the following recommendations
for instilling customer service values:

> Creating a customer-centered culture requires
> of management both a philosophical commitment
> and skill training for implementation.  Analyt-
> ical tools, and training in their use, are
> necessary to provide a structured or guided

10

approach to change. Among the most helpful tools are:

1) User friendly software for creating flow charts and process documentation.

2) Cause-and-effect diagrams, Pareto charts, control charts, and other graphic displays of data.

3) A measurement system that simultaneously shows quality, productivity, and financial performance for a given service product, all on the same page.

4) Customer satisfaction surveys designed to facilitate action.

Executives and managers seeking to bring about culture changes need not embark on massive orientation and training programs. Small is beautiful. Selecting projects in areas already receptive to change creates the successes necessary to get broader com- mitment for, and participation in, the change process. (18:36)

Peters and Waterman emphasize the significance of quality customer service, employee innovativeness, and the inportance of informality to enhance communication as dominant beliefs held by many excellent companies (25:285). These elements will be further discussed in the following chapters.

While total quality management is a way of conducting business, participatory management and implementation tactics are tools used by organizational leaders to install the policy and procedures necessary to operate under the total quality management philosophy. The next two sections

11

will focus on these tools and provide examples of their applications in organizations similar to MM and LOC.

## History of Participatory Management

Participatory management as organization policy can trace its roots to James F. Lincoln of Lincoln Electric Company of Cleveland. In 1913, Lincoln became head of the Electric Company and was forced to receive regular assistance on production and operations procedures due to his sales background. Lincoln established an advisory board, thus institutionalizing a process whereby employees could take part in the decision-making process. Eventually the advisory board broadened its perspective and became a forum for addressing employee grievances and complaints, and began recommending quality of worklife improvements (6:243).

Lincoln Electric is known to this day as an innovative company. Key to their success is a wholistic approach to change, with an emphasis on people. In an article about outstanding companies, Pearson reports:

> Lincoln Electric and other outstanding performers look at innovation systematically. They know that their competitive success is built on a steady stream of improvements in production, finance, distribution, and every other function, not just a big hit in sales or marketing or R&D. So they make sure they've got players who can deliver consistently. And they create organizations that give those players all the backup they need. That means:
>
> --Creating and sustaining a corporate environment that values better performance above everything else.

--Structuring the organization to permit innovative ideas to rise above the demands of running the business.

--Clearly defining a strategic focus that lets the company channel its innovative efforts realistically, in ways that will pay off in the market.

--Knowing where to look for good ideas and how to leverage them once they're found.

--Going after good ideas at full speed, with all the company's resources brought to bear. (22:99)

Beyond the radical innovations at Lincoln Electric, other managers and organizations began to recognize the impact employee morale and energetic input to operations had on productivity and quality. In 1927, Elton Mayo and a group of his Harvard colleagues were called in by the management of the Western Electric Company to study the effects of the physical environment on worker's productivity (20:143).

The experiments, now called the Hawthorne Studies, involved changing the light levels of the work areas with the hope of increasing worker productivity. Researchers believed that productivity would increase as the lighting improved; however, the experiment failed.

What the researchers did discover was that people responded positively to attention. The study illustrated to followers of Frederick Taylor the importance of worker attitudes, informal organizations, peer pressure, and other uniquely human factors conveniently disregarded by many

13

scientific management theorists. Managers were forced to adopt the position that workers were not machines. They had to be treated with human dignity if they were expected to produce in a consistent manner.

Employee work attitudes can impact the effectiveness of an organization:

> The Hawthorne studies first highlighted the importance of worker attitudes. As a result of the attention given to small groups of employees who were being observed, the workers reported a free attitude about what they did on the job. They felt the organization was interested in them and they liked it. Their social and work activities changed and performance increased as well. These initial studies prompted the researchers to investigate further the attitudes of all the employees and an extensive program of interviewing was commenced. From these data management gained an insight into the employees' attitudes about work conditions, rate-busters, supervisors and many other issues which affected their behavior on the job. (20:143)

The Hawthorne Studies demonstrate how knowledge about human behavior evolves. Human resource managers today recognize the importance of employee involvement in the decision-making process. When implementing change, managers musc not merely consider the style of implementation, but also the degree of participation the employess impart. In a study of displaced workers by Adams and Aronson, employees ranked personal dignity and status among fellow workers above job security and benefits (1:84).

14

Participatory management recognizes that people are not motivated through tangible reward only, and in fact may respond more positively to intangible incentives. Most organizational reward systems simply maintain an employee's cooperation rather than spur them toward greater levels of contribution to the organization. In today's competitive business environment an employee's

> satisfaction with his or her work is not good
> enough. According to Vroom, satisfaction and
> motivation are not closely related. An employee
> can be quite satisfied with his or her work, but
> not particularly motivated to perform well. (17:32)

Organizations both act and react to their external environment in a continuous struggle for survival and growth. Initiatives such as MM and LOC's reorganization are designed and implemented in an effort to improve organizational effectiveness. A key to the development of innovative programs depends upon overcoming employee resistance to the change itself. Participatory management is one avenue that can lead to success in this area.

A Coch and French study indicates that participation in decisions about major organizational change can lead to significant reduction in resistance to change (17:33).

Paradoxically, organizations must change and evolve to remain competitive, while human nature embraces continuity and stability. The act of employee participation in the change process makes the employee a part of the change, rather than an object of it. Participation by employees

15

gains their commitment and motivation to the organization as
they share in the success or failures of the change, while
heightening their understanding of the needs and objectives
behind the change (17:34).

Participatory management is a symbiotic relationship
between management and labor, whereby labor enjoys a greater
degree of control and input into their work environment and
management gains a more productive and creative labor force.
But participatory management is not the only means of
improving productivity. It is possible to enact change that
increases efficiency in the short-term at the expense of the
long-term. However, any sustained improvement in organiza-
tional effectiveness must be considered for the long-term.
Thus, any implementation of change stands a much better
chance of survival if it is nurtured in an environment of
mutual support among management and the employees (28:14).

Inherent to the participatory management style is a
supportive management. Shea draws the distinction between
aggressive and supportive management behavior in the below
table (27:34).

| Aggressive | Supportive |
|------------|------------|
| Evaluative | Descriptive |
| Controlling | Problem oriented |
| Uses a strategy | Spontaneous |
| Indifferent | Empathic |
| Superior | Equal |
| Certain | Provi ional |
| Distant | Helpful |

Table 1. Aggressive Versus Supportive Management Behavior

The supportive relationship has its foundation in a trust between the manager and employee. Shea recommends the following steps when trying to build a supervisor-subordinate trust (27:45-46):

1. Analyze the work and set high but realistic goals.

2. Train your subordinates and clearly define acceptable/unacceptable work standards.

3. Focus on what gets the job done, rather than how it is done.

4. Avoid using coercive power.

5. Concentrate on resolving problems, not inflicting punishment.

6. Skip the search for who is guilty and get on with precluding recurrence of the problem.

7. Support your subordinates and help them realize their potential.

Along with the change in management's perception of labor's needs and wants, the external environment and labor force are also changing. The table below depicts the traditional organizational environment compared with the one of today and the future (27:19).

| Traditional | Emerging |
|---|---|
| Uneducated, unskilled temporary workers | Educated, skilled career employees |
| Simple physical tasks | Complex and intellectual tasks |
| Mechanical technology | Electronic and biological tech. |
| Mechanistic views, direct cause and effect | Organic views, multiple causes and effects |
| Stable market and suppliers | Fluid markets and suppliers |
| Sharp distinction between workers and managers | Overlap between workers and managers |

Table 2. Traditional Versus Emerging Organization

There are numerous examples of participatory management in application. One of the most reknowned experiments took place at the Swedish automobile manfacturer Volvo. Volvo is famous for its innovative work group approach to automobile assembly. Its style is a recognition of people's need for meaningful work, job security, competitive pay, stability, and personal influence and participation in the company.

As a result of on-going employee and manufacturing innovations, Volvo management cites the following benefits:

--Employee turnover cut to one-quarter the previous average.

--Absenteeism dropped to one-half the previous average.

--Recruitment of new employees became easier.

--Quality of product improved.

--Labor productivity was maintained (9:vi).

Implementation of organizational change is not always accomplished through the use of particiaptory management styles, indeed, it may not always be appropriate. The next section of this literature review will survey the typical implementation tactics used by management, and identify the situation where each is most effective.

## Management Implementation Tactics

When an organization attempts to improve its operations, management must be prepared to overcome obstacles created by resistance to change among its personnel. "What creates resistance to technological or structural change is fear: fear of the unknown, fear of being lost, of being alone, of being an outcast" (5:146).

Management can overcome this resistance in the methods it uses to implement change. "Implementation tactics are made up of techniques coupled with ways to apply power" (21:367).

The second part of this literature review will discuss the various techniques available to managers to ensure successful implementation of change.

The study of implementation tactics is important because of the difficulties arising from change. Kami discussed change in his book Trigger Points thus:

> Change creates a difference between two states.
> This difference creates a gap between the old
> and the new situation. The gap must be filled,
> solved, or dissolved--it cannot remain untouched.
> (15:153)

19

The chances of success of any policy or procedural change can be dramatically improved by recognizing that people naturally resist change, and working as a leader to provide a positive environment for organizational and individual growth and security. Ignoring the impact of change within an organization can result in failure of the proposed changes, and may be detrimental to organizational effectiveness.

Harvey and Brown believe the degree of change and its impact on the corporate culture are the major factors contributing to change resistance.

> Two major considerations in making changes in an organization are the degree of change and the impact on the culture. Evidence suggests that change is difficult to accomplish, and resistance can be expected whenever a change involves a significant impact on the traditional behavior, power, culture, and structure within an organization. The degree of change and the impact on the existing culture present four possible change situations.
>
> 1. _Small change, small impact_. Where the change to be introduced is relatively minor, and the impact on the existing culture small, we can predict the lowest level of resistance and the highest probability of a successful change.
>
> 2. _Small change, large impact_. Where the change is minor but has an impact on the culture, some resistance can be expected, depending on the size of the threat, and the speed of the change.
>
> 3. _Large change, small impact_. Here the change is major, but the impact on existing culture is minor, so while some resistance is likely, good management can probably overcome resistance.
>
> 4. _Large change, large impact_. When the degree of change is large and the impact on the existing culture is high, the greatest resistance can be predicted. In this situation, the probability of success is low, and change should probably not be

attempted. Therefore, in managing change, expe-
rience suggests that both the level of resistance
and the time it takes to implement change tend to
be underestimated. (11:157-158)


## Tactics

One definition of management requires the manager to

utilize available resources to achieve desired results

(5:25), and when dealing with change, managers are par-

ticularly challenged to maintain smooth and effective

operations. "Many of the complications in the study of

organizational change are related to the way the individual,

the organization, and environment interact" (19:571).

Implementation of change creates gaps requiring both the

individual and the organizations to redefine their re-

spective goals and behavior.

The importance of implementation tactics comes into

play when controlling the rebel factor within the organ-

ization. Resistance to change is generally limited to a

small number of key players, and great strides can be

accomplished by overcoming resistance among these ranks.

According to James March:

Change takes place because most of the time most
people in an organization do about what they are
expected to do; that is, they are intelligently
attentive to their environments and their jobs
(19:564).

There are no rigid formulae for success when

implementing change. To be successful, managers must devise

tactics that neutralize, or at least contain, the elements of resistance within an organization (15:169)(21:230).

March believes an organization can best manage change through close monitoring of the change process, and discourages a manager from using his/her position to arbitrarily adopt change. He further states:

> Typically, it is not possible to lead an organization in any arbitrary direction that might be desired, but it is possible to influence the course of events by managing the process of change, and particularly by stimulating or inhibiting predictable complications and anomalous dynamics (19:575).

Nutt defines implementation as a "series of steps taken by responsible organizational agents in planned change processes to elicit compliances needed to install changes" (21:230). He further suggests four implementation tactics: intervention; participation; persuasion; and, edict, which will now be discussed separately.

The intervention tactic's strength lies in the manager's role of winning support for change from key players in the organization. Typically, any change is not arbitrarily implemented, but justified by the executives to the organization staff. Another key element of this tactic requires management to establish new norms to measure individual performance in the changed environment. Performance is closely monitored, with constant interaction between management and subordinates to adapt or modify changes to improve organizational effectiveness (21:242).

22

In the participation tactic, key organization stake-holders decide what change is necessary to improve business operations. From the beginning stages of implementation, management encourages participation from subordinates. Participation ranges from partial cooperation when framing strategies to resolve a problem, to full participation when installing it (21:242).

The persuasion tactic uses experts to sell the change management desires to the organization's workforce. Consultants and key organization staff are employed to convince the organizational leaders and subordinates that a particular change will be beneficial to the organization and its staff (21:242).

The edict tactic is the most forceful of the four, and makes no attempt to gain employee approval of the change before implementing it. In this tactic, the sponsor of a change issues a directive requiring adoption. Organization personnel are generally not involved in the decision or implementation process and are expected to perform in the new environment (21:242).

"The most common mistake managers make is to use only one approach, or a limited set of them, regardless of the situation" (16:112). According to March,

> Neither success nor change requires dramatic action. The conventional, routine activities that produce most organizational change require ordinary people to do ordinary things in a competent way. (19:575)

This literature review has shown that managers must be aware of the barriers to change inherent to any organization. While no one tactic is best suited for all situations, Nutt found that the intervention tactic, while rarely used, proved the most effective in creating successful implementation of change (21:242-243).

Nutt concludes:

> Managers using the intervention tactic were quite good at creating new norms in systems they sought to change. They offered new definitions of acceptable performance, justified these new norms, and showed how practices could be improved. Through these steps, sponsors were able to stipulate needs, thereby eliminating ambiguity, manage resentment, and reinforce what was wanted (21:255).

## An Application

Management of the Rushton Mining Company employed intervention tactics to change the authority, decision-making, reward systems, and other operational concerns within the company. The plan was particularly concerned with moving management and labor interaction from an adversarial role to one of mutual cooperation.

The plan was first implemented in 1974, and involved the creation of six new institutions within the organization:

--Section conference meetings were established to review past performance, plan future activities, and provide a formal communication network for addressing problems between

management and labor.

--Joint Labor-Management Committee were formed to resolve day-to-day problems.

--Foremen meetings were scheduled to help clarify the foreman's new role as safety inspector and provide an avenue to resolve problems at first level of supervision.

--Management meetings were initiated to deal with management's role in the change process and to ensure their commitment and support of the program.

--A Steering Committee, which drew up the original document for change, evaluated the progress of change implementation.

--Rushton employees participated in Quality of Work Conferences outside the company where ideas with competing firm's representatives about the innovative program at Rushton were shared (8:73-76).

The Rushton experiment typifies the organizational change process through intervention. Key to the success of the program is constant communication between and within the affected groups, and ongoing training of all involved personnel.

Conclusion

In this literature review the philosophy of total quality management was introduced, followed by a discussion of participatory management and implementation tactics and an example of its application. The purpose of this

25

literature review was to build a framework by which the TQM planning intitiative employed by the MM and LOC management teams could be evaluated. A basic understanding of participatory management and implementation tactics was necessary to ensure an accurate reporting and interpreting of data received through the case study research at LOC and MM, relevant to the implementation of their total quality management initiative.

# III. Methodology

## Overview

This study investigates how MM and LOC use total quality management planning techniques to implement organizational change. The research instrument and data collection consisted of three elements: 1) structured interviews; 2) a survey questionnaire; and, 3) observation at a two day planning session with senior MM and LOC personnel.

To achieve an understanding of the research objective required data collection from people in their work at MM and LOC. Questions included:

1. What is the primary mission of HQ, AFLC?

2. How do the LOC and MM divisions individually contribute to the HQ, AFLC mission?

3. What are the critical success factors that enable HQ, AFLC to accomplish its mission?

4. What obstacles are there that stand in the way of HQ, AFLC achieving its mission?

5. Who are HQ, AFLC's primary customers, and what do they expect from the LOC and MM?

6. How can the working relationship between LOC and MM be improved?

7. What specific implementation tactics has HQ, AFLC leadership used to resolve its organizational problems and implement further total quality management initiatives?

## Research Instrument Design

The process of implementing organizational change is difficult to conceptualize in a quantitative format; furthermore, a lack of viable theoretical data on the change process within the Air Force adds to the difficulty of conducting a purely quantitative study. Therefore, this research project used a structured interview, a questionnaire, and a management planning session to identify the TQM planning processes used by MM and LOC to resolve specific performance problems. Interviews provided the flexibility necessary to evaluate specific employee and managerial motivations and attitudes relevant to the change pr ~ess at HQ, AFLC, while the questionnaire provided detailed statistics regarding broadly held HQ, AFLC personnel opinions. The seminar allowed an in-depth observation of the problem solving techniques employed by MM and LOC senior personnel.

## Data Collection

Individual interviews were conducted with twenty various logistics management specialists selected on a random basis from the LOC and MM personnel rosters.

Interviews were structured based on the investigative questions previously mentioned. A copy of the structured interview is provided in Appendix B. All interview responses are discussed in detail in the following chapters.

The questionnaire consisted of eighty questions and was administered to 113 personnel within LOC and MM (7). Key responses significant to this study were used to reinforce findings from the interview process.

The final data collection took place during a two day TQM planning session with all MM and LOC senior personnel. This session addressed key problems identified through the interview and questionnaire instruments discussed above, followed with an extensive problem solving process analyzed in the Findings and Analysis chapters.

## Data Analysis

The findings of this research are based on qualitative assessment of interview responses, statistical results of the questionnaire, and observational notes from the planning session. Finally, conclusions and recommendations were made based upon data collected.

Details concerning the analysis and categorizing of responses are provided by individual question in the Findings and Analysis chapters.

# IV.  Findings

## Overview

This chapter presents the results of the interviews and
questionnaire.  Results from the management seminar will be
presented in the Analysis chapter.  Cluster analysis was
used to group all similar responses into one category,
making it easier to group and validate patterns of re-
sponses.  Cluster analysis is a technique used to
consolidate qualitative data, enabling the researcher to
draw conclusions and provide recommendations relevant to the
study.  For example, several responses that cite lack of
role clarity as an issue may indicate an underlying problem;
whereas, a single response may be discarded as biased or
invalid.

The large volume of material created in the data
collection process necessitated presenting a summary of
valid responses to each question.

## Responses to Individual Questions

The LOC and MM were divided into separate divisions to
allow distinctive areas of responsibility in support of the
overall HQ, AFLC mission.  In particular, the LOC is
primarily responsible for executing command policy in
support of Major Commands, Air Logistics Centers, and other

agency weapon system needs, while the MM division is primarily responsible for developing policy and procedures to guide HQ, AFLC activity.

As a result of this reorganization, HQ, AFLC believed further organizational improvements could be made to enhance customer service and increase operational efficiency within the MM and LOC organizations. Both the structured interview and questionnaire were designed to investigate probable key issues and problems that detract from HQ, AFLC's efforts to excel.

The following questions were presented to the LOC and MM logistics management specialists. A summation of their responses is indicated beneath each preceding question.

### What are the Primary Missions of the LOC (MM)?

The most common response to this question identified the LOC mission as a support group, providing logistics coordination between the System Program Managers, Systems Coordinating Officer, Air Logistics Centers, using commands, and other services. MM identified their mission as one of providing the structure--policy and procedures--to carry out logistics support.

Other responses indicated that many of the LOC and MM functions are interrelated, and sometimes redundant.

31

What is the Mission of Your Part in the Organization?

In contrast to the first question, this question was designed to elicit a discussion of the interviewee's particular section or function within the organization.

Although answers to the first question portray a liaison role between providers and users, responses to this question indicate much of the LOC and MM personnel devote more than forty percent of their time preparing and presenting information for the HQ, AFLC command staff. The logistics management specialists agree that their primary mission should be the support of a weapon system from design through the life cycle. However, many of the LOC and MM personnel were frustrated over their inability to perform the primary mission because of perceived excessive inquiries from higher level commanders. Other interviewees believed their role was flexible and should vary with the needs of the weapon system and customer demands.

What Critical Success Factors are There That Enable LOC and MM to Complete Their Mission?

The purpose of this question was to generate a list of key processes involved in performing the MM and LOC, and the critical success factors which must go right to accomplish the mission.

A common response to this question demonstrated a need for customer feedback. All of the interviewees acknowledged

32

customer support and satisfaction as a critical success
factor, but could not identify an objective, quantifiable
method of measuring their perfomance in this area.  Three
interviewees recognized on time delivery, meaningful policy
and procedures, and the liaison role as critical success
factors.

## What Obstacles Do You Believe Stand in the Way of Successfully Achieving Your Mission?

A common practice within MM and LOC is to assign
multiple areas of responsibility to one individual or
section.  Over eighty percent of those interviewed believed
this multiple tasking creates a conflict of interest and
confusion over who is in charge.

Additional comments cite a burdensome administrative
process as a major obstacle.  One example tells how an
organizational policy statement took a half-dozen rewrites
and several meetings with the general officers to finalize.
Other examples include suspenses that create conflicts in
how an individual prioritizes his or her work, and lengthy
coordination requirements for mundane decisions.

Another obstacle noted by three interviewees was the
budgeting problem.  While LOC is responsible for advocating
and supporting weapons systems, its role in the funding
process is negligible relative to that of MM.

## Who Are Your Customers and What Do They Expect from You?

As a result of recognizing customer support and satisfaction as a critical success factor, this question was asked to determine the LOC and MM technicians' understanding of their customer's expectations. Within an organization there are both internal and external customers. A frequent mistake organizations make is to forget that section and department interrelationships depend upon a customer-server relationship. Thus, the "internal" customer is often neglected or disregarded as insignificant, while service to the "external" customer continues with a decreasingly efficient and effective serving organization.

Most of the interviewees identified the ALCs and MAJCOMs as their primary customers--neglecting the internal customer. Concerning expectations, the interviewees felt the customer wanted timely support with minimal direction and influence from HQ, AFLC.

## What Do You Perceive to be MM's or LOC's Mission or Function?

In this question the interviewees were asked to discuss their perception of the other division's role. For example, a LOC individual was asked to discuss MM, and vice versa.

The responses to this question generally recognized that division's stated mission as its primary function.

However, over fifty percent of the responses indicated where one division was perceived as overstepping its authority, encroaching upon the other division's area of responsibility, or passing the buck.

### Rate the Relationship Between LOC and MM.

Most of the answers to this question spoke of an "improving relationship" between LOC and MM. A few responses indicated that the only barriers were personalities, and not organizational or professional, although they did lament the perceived promotion opportunity dichotomy between the divisions. One specific example of computer resources being over abundant in MM, while LOC had only one terminal illustrated a correctable situation that hampers professional interrelationships while feeding the superior-subordinate feeling among MM and LOC personnel.

### Rate the Support You Receive From MM (LOC).

Both divisions made statements regarding the other's "tough job," and believed they worked well together to resolve problems.

A key issue identified in the responses to this question was one of funding, and specifically addressed the lack of a formal funds allocation process as a barrier to a sound working relationship.

## Responses to the Questionnaire

The following statistics were provided by Randal A. Gescheidle in conjunction with a parallel study concerning the HQ, AFLC organization. The questionnaire was administered to 113 MM and LOC personnel and serves to reinforce the interview findings in this thesis (6).

1. Eighty-six percent of the respondents believe there are problems with the relationship between LOC and MM.

2. Seventy-four percent believe communication is a problem, both internally and externally.

3. Forty-seven percent cite lack of information flow across departments as an obstacle to communication within HQ, AFLC.

4. Sixty-two percent believe information necessary to perform their job is not readily available.

5. Sixty-eight percent say the organizational layout of LOC and MM creates a barrier to effective communication between the divisions.

6. Sixty-eight percent believes the organizational layout hampers mission accomplishment.

A discussion of each result area is included in the Analysis chapter.


## Conclusion

In this chapter the results of the interviews and selected portions of the questionnaire were discussed.

The next chapter will present the proceedings from the management seminar and attempt to analyze and form conclusions relevant to the information presented above.

# V.  Analysis

## Overview

The purpose of this chapter is to discuss the results
of the interviews and questionnaire, and how HQ, AFLC
employed techniques discussed in the literature review
during the management seminar.  Furthermore, this chapter
will analyze the actions planned and implemented by HQ, AFLC
leadership that relates to the investigative questions of
this thesis, and the initiatives taken to overcome barriers
to higher levels of organizational effectiveness and
efficiency.

## Analysis of Interview and Questionnaire Responses

Both the structured interviews and questionnaire were
designed to gain specific research data relevant to the
mission of the LOC and MM divisions within HQ, AFLC.  The
critical success factors and key mission processes that
enable LOC and MM to accomplish their mission, and the
communication process within the two divisions, were also
analyzed.

### Role Clarity.

Questions one and two in the structured interview
addressed the mission of HQ, AFLC and the inter-viewee's
role in the organization.  Their main purpose was to

demonstrate an understanding, or lack of, the primary objectives and goals of the organization. The interview responses indicated a foundation exists whereby HQ, AFLC personnel form a basic concept of what they must do individually, and as a group, to serve the logistics support needs of the Air Force. However, throughout all the interviews, and reinforced by the questionnaire results, there is the absence of a clear, concise organization purpose. The complexity of the MM and LOC mission compounds the difficulty of achieving a singleness in purpose among effected personnel. This presents a considerable barrier to progression towards improvement without a completely institutionalized and accepted set of long and short term goals, coupled with the funding and manpower resources to meet the critical success factors.

Role clarity becomes more difficult to attain as the size and complexity of the matrix organization grows. According to Peters and Waterman:

> Along with bigness comes complexity, unfortunately. And most big companies respond to complexity in kind, by designing complex systems and structures. They then hire more staff to keep track of all this complexity, and that's where the mistake begins. The solution just doesn't go well with the nature of people in an organization, in which things need to be kept reasonably simple if the unit is truly to pull together. The paradox is clear. On one hand, size generates legitimate complexity, and a complex systems or structural response is perfectly reasonable. On the other hand, making an organization work has everything to do with keeping things understandable for the tens or hundreds of thousands who must make things happen. And that means keeping things simple. (25:306)

Critical Success Factors.

Questions three and four in the structured interview provided information pertaining to HQ, AFLC personnel's understanding of the critical success factor concept and the role they play in accomplishing an organizational mission. As indicated in the Findings chapter, most of the interviewees recognized the need to provide customer support as a critical success factor. However, when asked to define "quality customer support" they were unable to provide a single objective or measurable means of determining if they had met the customers needs, aside from the number of formal complaints. The emphasis on complaints as a feedback mechanism implies a negative orientation towards customer support. Applying proactive, as opposed to reactive, attention to customer needs can help prevent a failure to meet a critical success factor. Additionally, the administrative and funding problems identified in question four further complicate meeting customer demands in a timely manner and efficien. use of resources.

Key Mission Processes.

Questions five and eight were asked to gain insight on how HQ, AFLC personnel perceive the needs of their customers and what specific actions they take to meet these needs. In particular, the responses to these questions illustrated a need within the LOC and MM divisions to appoint single process owners for routine tasks that contribute to

achieving a critical success factor. For example, the often vague boundaries between LOC and MM areas of responsibility could result in an important facet of customer service to be neglected. By identifying a single process owner for each of the key processes within a critical success factor, an organization the size of either MM or LOC could maintain strict accountability and assurance that each subelement of their complex mission is met.

Communication.

In an organization as complex as MM or LOC, smooth and accurate information transmission and reception is critical. In the interview responses and the questionnaire, it became apparent that many improvements could be made in how information is used and shared within the LOC and MM divisions. Although previous responses indicated a burdensome administrative process as a barrier, the need still exists to ensure all affected personnel are aware of factors impacting their role or mission in the organization. This could be improved, while reducing the cited administrative problems, by redefining the roles of each member of the organization, allowing lower level personnel to make decisions, and rewriting staff and coordination requirements to reflect a more streamlined, decentralized operation.

Further improvements could be made by reducing the formality of the communication process. As discussed in the

41

Findings chapter, writing policy changes and sharing

information across divisions can be difficult. Peters and

Waterman discussed the informal organization and its

advantages when they first compiled survey results from

numerous "excellent" companies:

> When we tried to summarize what seemed most im-
> portant to us, we unanimously agreed that it was
> the marvelously informal environments of the ex-
> cellent companies. We have not changed our view
> since. The name of the successful game is rich,
> informal communication. The astonishing by-prod-
> uct is the ability to have your cake and eat it,
> too; that is, rich informal communication leads
> to more action, more experiments, more learning,
> and simultaneously to the ability to stay better
> in touch and on top of things. (25:124)

The next section will present an in-depth look at the

TQM planning session used to overcome these problems and

launch a MM and LOC TQM program. In particular, data from

the structured interviews and questionnaire was used to help

the participants identify key issues and problems that

detract from MM and LOC's organizational goals.


## Key Issues

The following key issues were identified during the

interview process. Participants in the management seminar

used these issues as the obstacles that must be overcome to

ensure continuous improvement within HQ, AFLC and its

customer support.

1) A lack of clear role definition for each of the

divisions. LOC and MM personnel have lost contact with the

true needs of both their internal and external customers.

2) Funding for the two divisions is controlled by MM, whereas LOC is primarily responsible for completing the task. The centralization of funding authority within MM creates animosity between the groups and complicates the efficient and effective use of funds.

3) LOC and MM lack a sustained quality initiative that will join the organization as a whole in a campaign to ensure customer satisfaction and improve operation effectiveness.

4) Although organizational restructuring is a frequent occurrence at HQ, AFLC, LOC and MM have no formal system that identifies each section and department's mission, and interdependence with other units. This lack of an institutionalized change process creates role ambiguity, task duplication, and in some cases a failure to meet the customer needs in a timely manner.

## Resolving the Key Issues

During the two day TQM planning session senior personnel from MM and LOC joined to discuss key issues impacting their organization performance. Participants were then guided through a TQM planning process to identify the causes behind the problems, how to resolve them, and how to prevent their recurrence.

As discussed in the literature review, total quality management entails a customer service orientation. To

facilitate this, the serving organization must be able to identify who the customer is, what their expectations are, and establish a system to meet those needs. Additionally, TQM requires that mangement identify the critical success factors relevant to the organization, select key processes facilitate the management of the critical success factors, and select actions to optimize performance of those processes (14).

In an era where customer service is crucial to an organization's development, it is important to know your customer's needs and wants. Peters and Waterman further emphasize the need to accentuate customer service:

> So the excellent companies are not only better on service, quality, reliability, and finding a niche. They are also better listeners. That is the other half of the close to the customer equation. The fact that these companies are so strong on quality, service, and the rest comes in large measure from paying attention to what customers want. From listening. From inviting the customer into the company. The customer is truly in a partnership with the effective companies, and vice versa. (25:196)

During the planning session twelve distinct customers were identified:

1) Air Logistics Centers

2) Major Commands

3) Air Staff

4) Secretary of Defense

5) Sister Services

6) Congress

44

7)   Defense Contractors

8)   Other AFLC Organizations

9)   Foreign Countries

10)  Federal Agencies (FAA, NASA, GSA, GAO)

11)  HQ, AFLC Command Staff

12)  Internal (MM and LOC personnel)


The next step in resolving the key issues required the participants to determine the critical success factors relevant to their weapon system logistic support mission. Five critical success factors were identified:

1)   Hire, train, and maintain a quality workforce.

2)   Ensure adequate management of funds, manpower, and material resources.

3)   Provide the best possible customer support.

4)   Provide structure and mission clarity to ensure all personnel understand their role in the organization.

5)   Provide the customer with an excellent product.

Using a nominal group technique the planning session participants were asked to identify the elements of each critical success factor. The nominal group technique is a decision-making tool that utilizes the anonymous inputs from all group members while minimizing the impact of persuasive and authoritative members. Brown and Moberg further discuss the nominal group technique:

> In the nominal group technique the participants
> sit around a table but do not speak to each other.
> For about 5 to 10 minutes each writes down his

45

thoughts and ideas about a problem on a pad of
paper. Then there is a structured sharing of ideas.
Going around the circle, each person presents one
idea; a recorder writes this on a flip chart in full
view of the entire group. There is no discussion.
This process continues until all ideas are exhausted.
Then the full list of ideas is discussed with each
idea receiving comments and clarification. The last
stage involves a voting procedure: each participant
in writing sets a rank ordering for each idea. These
outcomes are then mathematically pooled to arrive at
a group decision. (2:565)

Using the nominal group technique, the planning session

participants identified the key processes necessary to meet

the critical success factors of the organizations.

The processes involved in hiring, training, and

maintaining a quality workforce begins with the need to

define "quality." A minimum requirement should obviously be

a desire to work. As reported by Rogers, Peter Engel, CEO

of Helena Rubenstein believes "the main concern of any

business enterprise is to hire and nurture people dominated

by achievement motivation" (26:38). Other processes of this

critical success factor include the need to enhance

autonomous decision making, providing the right training at

the right time, and the establishment of appropriate hiring

and performance evaluation standards for each skill area.

Providing for adequate resource management is a process

that begins at the conception of a weapon system need,

through the logistic support rendered during the product

life cycle. Within AFLC this process involves: determining

needs; advocating programs; rendering funding support;

prioritizing resource requirements; distribution of the resources; and, monitoring the use of resources and supplying the logistics necessary to support the weapon system.

Providing the best possible customer support begins with identifying who the customer is and what they expect. At this point a set of policies and procedures can be institutionalized to guide the support process, followed by the appointment of process owners for each area of support required to meet the critical success factor. Other processes in this step included: streamlining and simplifying the customer support function; prioritizing processes and customer requirements; using forecast tools to anticipate rather than react to customer demands; and, developing a feedback mechanism to measure customer satisfaction.

According to Desatnick, business has entered an era of customer sovereignty. Although HQ, AFLC is not profit oriented, it must operate within a budget and perform a service (4:26). Desatnick's quality checklist is important to MM and LOC's customer service initiative and is further discussed in the final chapter of this thesis.

The mission statement is the most important part of improving role clarity within an organization. Personnel must be able to visualize a goal and understand the specific function of their part of the organization in order to excel

47

at their job.  Role clarification also entails determining
where overlaps and task barriers exist, and how change will
be planned and implemented in the future.

Peters and Waterman speak of the power a unifying
theme, or mission, holds in enabling matrix organizations to
change and progress.

> Beyond the simplicity around one underlying form,
> we find the excellent companies quite flexible in
> responding to fast-changing conditions in the en-
> vironment and in dealing with the issues posed by
> the ubiquitous presence of matrix-like conditions.
> Because of their typically unifying organization
> theme, they can make better use of small divisions
> or other small units.  They can reorganize more
> flexibly, frequently, and fluidly. (25:308)

Much of MM and LOC's mission is to coordinate and
disseminate information relevant to a particular weapon
system.  The final critical success factor discussed during
the seminar was the need to provide excellent products,
particularly information.  To accomplish this a system must
exist for the proper identification of information needs,
the tools, personnel, and direction to effectively utilize
and distribute the information, and a single process owner
for each function.

A final step in the TQM planning session involved
detailing the specific processes involved in material
management at MM and LOC.  Material management is the
overall function of the two organizations and therefore
represents a crucial area that both management and
subordinates must understand if the organization is to

improve. As a result of the TQM planning session, MM and LOC planned to action on the following issues:

1) Identify single owner for key mission processes.

2) Redistribute information systems equipment between MM and LOC.

3) Plan common social events for both organizations.

4) Establish rank structure equality for MM and LOC.

5) Collocate MM and LOC personnel.

6) Complete a joint mission statement for MM and LOC

7) Give an MM office symbol XO function.

8) Establish regular "board of directors" meetings.

9) Merge MM and LOC administrative functions into one unit.

Participants in the TQM planning session narrowed the multiple and complex material management tasks of both MM and LOC into five key processes:

1) Requirements and Resources

--determine needs

--advocate programs

--funding support and defense

--prioritize allocation

2) Operations Issues Management

--react to contingency requirements

--plan for future needs

--weapon system user interface

3) Information Management

--training of support personnel

49

--status reporting, both scheduled and unscheduled

4) Initiative Management

--continuous improvement of customer support

--development of ideas and technology

5) Program Management

--funds allocation

--procurements

## Conclusion

In this chapter the key issues and critical success factors impacting HQ, AFLC's mission accomplishment were discussed. Also, an analysis of the interview and questionnaire results was presented, leading to the specific recommendations and conclusions provided in the next chapter.

# VI. Conclusions and Recommendations for Future Research

## Overview

This chapter presents a summation of the research study, specific recommendations towards improving MM and LOC operational efficiency and effectiveness, a look at applicability of lessons learned by MM and LOC in other matrix-type organizations, and suggested areas of future research.

## Recommendations for Improving the Change Process

As a result of the interviews and questionnaire discussed in previous chapters, it is obvious certain steps were not accomplished during the planning and implementation stages of the most recent MM and LOC reorganization. The following recommendations were made in response to MM and LOC needs.

1. What is the primary mission of HQ, AFLC?

2. How do the LOC and MM divisions individually contribute to the HQ, AFLC mission?

3. What are the critical success factors that enable HQ, AFLC to accomplish its mission?

4. What obstacles are there that stand in the way of HQ, AFLC achieving its mission?

5. Who are HQ,AFLC's primary customers, and what do they expect from the LOC and MM?

6. How can the working relationship between LOC and MM be improved?

7. What specific implementation tactics have HQ, AFLC leadership used to resolve its organizational problems and implement further total quality management initiatives?

## Recommendations

A need exists within LOC and MM to identify and monitor progress toward managing respective critical success factors. These factors are crucial to successful accomplishment of the mission and must be understood by all organizational personnel to ensure all action at the activity level is directed towards achieving the critical success factors.

The significance of a unifying organization theme cannot be overstated. In an article about team building at IBM, Hardaker and Ward state that a team formed to identify and correct problems must develop a concise mission statement if they are to succeed. They add:

> If the mission statement is wrong, everything
> that follows will be wrong too, so getting a
> clear understanding is crucial. And agreeing
> on a mission may not be as easy as it may at
> first seem. People in well-run companies and
> government agencies tend to know their job de-
> scriptions, the benefits package, and their own
> job objectives. But even at the top, their ideas
> about the organization's mission are often pretty
> vague--to make profits or something like that.
> In part, this reflects the nature of management

teams. People are appointed, stay a while, do
their jobs, and move on; each team includes long-
serving members, new arrivals, and new leaders.
As a group, they may never have articulated their
mission to one another. (10:113)

To gain an understanding of the critical success
factors requires a clear definition of the organization's
mission and the specific roles each of its sections will
perform in direct service towards achieving the mission.
Also key to this process is the individual's understanding
of their part within the organization. This begins with a
concise job analysis and an objective performance evaluation
system.

The responsibilities of both LOC and MM demand services
to multiple customers, with the bulk of attention being
given the ALCs, MAJCOMs, and sister services. Each
individual within LOC and MM should have a written
description of both internal and external customer re-
quirements. These customer requirements should not be
developed from within HQ, AFLC; rather, they should be the
result of customer expectations as expressed by the ALC,
MAJCOM, and sister service personnel LOC and MM serve.

In addition to clarifying mission and role definitions,
the issue of funding control and expenditure between LOC and
MM must be resolved to ensure a strong interworking rela-
tionship in the future, and continued efficient use of funds
to meet Air Force logistics requirements. The current
system is cumbersome and complicates the funding process.

Rogers believes an organization should structure itself to focus on the problem at hand: "A corporation should be designed so that the greatest possible impact of the whole organization can be quickly and simultaneously concentratec on the main issue--the major objective to be reached or the problem to be solved" (26:20). To resolve this issue, the funding allocation authority should be decentralized throughout LOC and MM. A joint budget office could also be formed to provide fair representation of key issues and funding requirements from both divisions.

Further recommendations, in response to minor issues identified in the interview process, are as follows:

1) Decrease the layers of management and change the organizational hierarchy to a flatter, leaner organization.

2) Create a system for self management of change (continuity folders), with a high involvement from all organizational levels, coupled with explicit details of the mission and operations for each departmeʌt adn function.

3) Streamline the process of providing information to the command section.

4) Establish quantitative methods to accurately assess quality of customer service and provide feedback to all levels for immediate repair and/or correction of weak areas.

5) Measure and reward performance at the group level. This entails a detailed understanding of the group's functions and interworkings, which in turn allows management to

establish realistic goals that challenge team development and organizational improvement.

The manning and funding resources exist within LOC and MM to create a high performance organization. Obstacles to this end were identified in the Findings and Analysis chapters of this study.

However, as reported by Peters and Waterman, the consultant Robert Schaffer suggests organizations start small and build on their successes, thus minimizing the change impact and improving the chances of successful change implementation. Schaffer states:

> The essential idea is to focus immediately on tangible results--rather than programs, preparations and problem-solving--as the first step in launching performance improvement thrusts. It is almost always possible to identify one or two specific short-term bottom line goals for which the ingredients for success are in place. The results-first approach changes the whole psychology of performance improvement. People must ask different kinds of questions. Not, "What is standing in the way?" but rather, "What are some things we can accomplish in the next little while?" Instead of trying to overcome resistance to what people are not ready to do, find out what they are ready to do. Almost inevitably, when the managers successfully complete a project, they have many ideas about how to organize subsequent steps. (25:149)

## Applicability to Other Organizations

The lessons learned by the MM and LOC staff are applicable to most matrix organizations where policy and procedural conflicts run the risk of creating employee dissatisfaction and disruption of customer support. From

55

the examples cited in Paul Nutt's research (21:230), the intervention tactic, though used less frequently than others, is often the most effective in minimizing employee resistance or dissatisfaction when implementing change.

Within MM and LOC, examples of the edict, persuasion, and participation tactic were noted, with no specific uses of the intervention tactic recorded. This should not be construed in a negative sense, however, because use of implementation tactics is situational. Often, the intervention tactic is not used because management confuses it with participatory management techniques, or simply disregards the importance of the employee's role in the organization.

Specifically, the intervention tactic applies an extended participatory management style. Employees, while active in the planning and implementation stages, are not the decision makers. Also, managers must be careful not to implement change for the sake of change; rather, change should be the result of in-depth planning and goal setting, with continuing analysis of employee performance and customer support.

Concerning customer service, all organizational improvements should ultimately, if not primarily, be advantageous to the customer. Organizations change in order to enhance operational effectiveness, either through improved efficiency or better customer service, and often

the best way to achieve this is through a solid understanding of your customer's needs and how the organization can best meet them. The use of customer feedback, review of customer comments, and analysis of employee performance and constructive input are all valuable tools in the total quality management initiative. Desatnick expounds on this idea of customer service initiatives and use of customer feedback:

1. Use quantitative survey data to annually measure your organization's health vis-a-vis its contributors. That is, its stakeholders-- both internal and external.

2. Analyze customer complaint logs and letters.

3. Review and assess management and employee turnover.

4. Authorize service evaluations using mystery shoppers.

5. Ensure that your reward system encourages excellence in quality of service.

6. Make customer service performance standards a part of every contact position.

7. Talk with your customers. Ask for their impressions on service quality and how to improve it.

8. Set service goals.

9. Measure service performance against standards and goals. (4:26)

## Recommendations for Future Research

Further research must be accomplished to thoroughly understand the change process and use of total quality

management initiatives within the Air Force. Recommendations for further research include the following:

1) An inspection of why employees respond differently to given management implementation tactics when installing policy and procedure, or structural change.

2) An investigation of factors that cause or create employee and/or management resistance to change.

3) An investigation of specific employee motivational factors within the Air Force organization and how they can be used to enhance morale and organizational effectiveness.

## Appendix A. Follow-up Report

Management within both LOC and MM have taken aggressive action to resolve problems identified in this thesis and the TQM planning session. Currently, an agenda is being constructed for a second TQM planning session with an emphasis being placed on evaluating progress on action items started in the original session, and a look to the future and how implementation of change can be enhanced to ensure employee cooperation, and improved customer service.

In particular, the next TQM planning session will include:

1. Recap of first session

    a. Review of notes and documentation

    b. Reveiew of progress towards writing a joint mission statement

    c. Review of critical success factors and appointment of single process owners

2. Discuss current status of action items identified in first seminar

    a. Review progress of action items and make appropriate changes to facilitate successful completion

    b. Identify new action items and appoint process owners and establish schedules of completion for each task

    c. Designate one person to track and monitor progress on all action items

3. Anticipate the future

    a. Set date for the next meeting

    b. Set long and short term goals for team building and action item projects

The pursuit of excellence through total quality management is not a short term goal, and may perhaps best represent a journey, rather than a desination. To ensure continuing support and recognition of the total quality management initiative, MM and LOC management teams must instill a sense of excitement and ongoing improvement in the logistic support arena. According to Jacobs (13:15-30), the success of QP4, which faces similar goals and constraints as TQM, includes the following elements:

1) Implementation of the innovation through sound planning and establishment of measurement standards.

2) Breaking the innovation into comprehensible and divisible categories (e.g. administrative innovations, technical innovations, and implementation of the plan).

3) Customizing the innovation for compatability to the effected organization by considering its organizational climate, structure, and mission.

4) Using management techniques, implementation tactics, and interdepartmental participation to implement change (e.g. collaboration between technical and administrative personnel on a proposed change can help to reduce resistance to change).

The following pages are representative of the efforts currently being taken by MM and LOC following the first TQM planning session.

REPLY TO
ATTN OF  CV

2 1 JUL 1989

SUBJECT  System Program Manager (SPM)/Item Manager (IM) Interface

TO  OC-ALC/MM    OO-ALC/MM    SA-ALC/MM    SM-ALC/MM    WR-ALC/MM

1.  Recent initiatives such as PACER STRIDE, Weapon System Master Planning, the Acquisition Executive System and Weapon System Program Decision Packages have been evidence of AFLC's movement toward weapon system management while retaining a large commodity and item-related work force.  The LOC and HQ AFLC/MM have undertaken a joint effort to clarify the future relationships between SPMs and IMs.  This will help us identify improved policies and systems to aid those relationships.

2.  As one of the initial parts of this effort, we would like inputs from experienced SPMs, commodity managers and IMs throughout AFLC.  We have identified the personnel in Atch 1 as participants.  We need input relative to the following:

    a.  Views on the current relationships between SPMs and managers for commodities which are "peculiar" to a weapon system, but are managed by another division or center, e.g., engines, landing gear, peculiar support equipment.

    b.  Views on the current relationships between SPMs and managers for items common to several weapon systems and managed by another division or center, e.g., avionics, common support equipment.

    c.  Views relative to both a and b above on the desired future relationships as AFLC continues to move toward weapon system management.

    d.  The following are examples of questions under consideration, and are provided to participants only as an aid in preparation.

        (1)  What should be the role of MMM in the future in the coordination and dispersal of SPM and IM policy?

        (2)  Do we need commodity or stock class master plans, do they duplicate weapon system master plans in some areas, and what should be their relationship with the weapon system master plans?

        (3)  To what extent should we work towards collocating DS, SOR, and PM activities with the SPM/IMs?

        (4)  How far should we go with the item transfers from IMs to SPMs proposed as Phase 2 and Phase 3 in the PACER STRIDE PAD?

        (5)  Are the various organizational responsibilities and counterpart

relationships at HQ AFLC/MM and the LOC apparent to SPM/IMs?

      (6) What SPM/IM policies require clarification or improvement to meet the needs of the evolving relationships?

3. We have scheduled the VTCN in accordance with the schedule in Atch 2 to receive and discuss these inputs. Each participant should plan on presenting their views using two viewgraphs (current and future relationships) as a departure point for discussion.

4. In this initial phase of this effort, we have focused on aircraft weapon systems. We will expand to other types of weapon systems in a later phase. Similarly, we will also include SPM and IM involvement with engineering/technology initiatives at a later date. Please provide points of contact/AUTOVON numbers for your Center to AFLC LOC/PN, AUTOVON 787-2225 by 1 Aug 89. If any of the individuals in Atch 1 are unable to participate, please identify alternates with similar experience. We have established a team to work this effort. Members are identified in Atch 3. Please address any questions to any of those members.

'**SIGNED**

ROBERT T. PINIZZOTTO, Colonel, USAF      3 Atch
Vice Commander                          1. Proposed ALC Participants
                                      2. VTCN Schedule
  **SIGNED**                   3. SPM/IM Interface Team

MARVIN L. DAVIS, Colonel, USAF
Director, Item Management Policy,
  System, and Analysis
DCS, Materiel Management

## PROPOSED ALC PARTICIPANTS
## SPM/IM INTERFACE

OC-ALC

| | |
|---|---|
| Col Howe | MMH |
| Mr Davis | MMP |
| Mr Wheeler | MMM |

OO-ALC

| | |
|---|---|
| Col Montgomery | MMS |
| Mr Thornell | MMI |

SA-ALC

| | |
|---|---|
| Col Davis | MMU |
| Col Johnston | MMT |

SM-ALC

| | |
|---|---|
| Mr Langenbeck | MMK |
| Mr Alexander | MMI |

WR-ALC

| | |
|---|---|
| Col Boots | MMS |
| Mr Messer | MMI |
| Col Taylor | MMR |

First Day - 14 Aug 89, 1100-1230 (EDT)

| | | |
|---|---|---|
| Introduction | HQ Team | 15 Minutes |
| Col Howe | OC-ALC | 15 Minutes |
| Mr Davis | OC-ALC | 15 Minutes |
| Mr Wheeler | OC-ALC | 15 Minutes |
| Col Montgomery | OO-ALC | 15 Minutes |
| Mr Thornell | OO-ALC | 15 Minutes |

Second Day - 15 Aug 89, 1145-1245 (EDT)

| | | |
|---|---|---|
| Col Davis | SA-ALC | 15 Minutes |
| Col Johnston | SA-ALC | 15 Minutes |
| Mr Langenbeck | SM-ALC | 15 Minutes |
| Mr Alexander | SM-ALC | 15 Minutes |

Third Day - 21 Aug 89, 1530-1645 (EDT)

| | | |
|---|---|---|
| Col Boots | WR-ALC | 15 Minutes |
| Mr Messer | WR-ALC | 15 Minutes |
| Col Taylor | WR-ALC | 15 Minutes |
| Wrap Up | All | 30 Minutes |

AFLC LOC - HQ AFLC/MM TEAM

| NAME | OFFICE SYMBOL | AUTOVON | |
|------|---------------|---------|--|
| Col Pinizzotto | AFLC LOC/CV | 787-5177 | (Co-chair) |
| Col Davis | HQ AFLC/MMI | 787-7314 | (Co-chair) |
| Ms LaGrone | AFLC LOC/SD | 787-7015 | |
| Mr Zimmermann | HQ AFLC/MMI | 787-7314 | |
| Mr Fincher | HQ AFLC/MMI | 787-5235 | |
| Mr Kramer | AFLC LOC/PN | 787-2225 | |

# MM-LOC OFFSITE ACTION ITEMS

ACTION ITEM: Assign single <u>owner</u> for each process in the Mission directive.

OPR:  MM (R. Maginel)
OCR:


ACTION ITEM: Create a rotational program for personnel between LOC and MM.

OPR:  Asst MM (Earl Briesch)
      LOC/CA  (Tony Pansza)
OCR:


ACTION ITEM: SPM/IM/Engineering interface and responsibilities


OPR:  LOC/CV (Col Pinizzotto)
      MMM    (Col Davis)
OCR:  MME    (Rothery)


ACTION ITEM: Make more judicious use of my MMB office symbol.

OPR:  LOC Directors
OCR:


ACTION ITEM: Promote and participate in joint social functions.

OPR:  MMAR
OCR:


ACTION ITEM: Press for more extensive use of E-Mail (office automation) for use across MM and LOC.

OPR:  MMD
OCR:


ACTION ITEM: Budget review process EEIC 583/592.

OPR:  MME
OCR:

ACTION ITEM: MMI/MMM will form process management teams.

OPR: MMM (Col Davis)
OCR:


ACTION ITEM: Get the directors or deputy directors of LOC, MMM, MMA, MME, and MMI together to review financial management process on a BP-by-BP basis to see where there is duplication that could be eliminated or efficiencies derived by co-location.

OPR: MMM (Chuck Jackson)
OCR:


ACTION ITEM: Work on mission statement to 3-letter.

OPR: MMQ
OCR:


ACTION ITEM: Work with MMI on inventory team.

OPR: MMQ
OCR:


ACTION ITEM: Re-allocate Z-248s from MM to LOC. LOC directors provide requirements to RM.

OPR: RM (Cummings)
OCR: XOYS/MMI-3
     LOC Directorates


ACTION ITEM: Obtain MM office symbol for LOC/XO.

OPR: RM (Cummings)
OCR: XO


ACTION ITEM: Help complete a single mission statement.

OPR: TL (Col Abrams)
OCR:

# Appendix B.  Structured Interview

1.  What are the primary missions of the Logistics Operation Center (Material Management Division)?


2.  What is the mission of your part in the organization?


3.  What critical success factors are there that enable LOc (MM) to complete its mission?


4.  What obstacles do you believe stand in the way of successfully achieving your mission?


5.  Who are your customers and what do those customers expect from you?


6.  What do you perceive to be MM's (LOC's) mission or function?


7.  How would you rate the relationship between the LOc and MM?  Please explain your rating.


8.  How would you rate the support you receive from LOc (MM)?  Please explain your rating.

# Bibliography

1. Adams, Leonard P. and Robert L. Aronson. Workers and Industrial Change. New York: Greenwood Press, 1957.

2. Brown, Warren B. and Dennis J. Moberg. Organization Theory and Management: A Macro Approach. New York: John Wiley & Sons, 1980.

3. Burstein, Carolyn and Kathleen Sedlak. "The Federal Productivity Improvement Effort: Current Status and Future Agenda," National Productivity Progress, 7: 122-133 (Spring 1989).

4. Desatnick, Robert L. "Long Live the King," Quality Progress, 22: 24-26 (April 1989).

5. Drucker, Peter F. Managing in Turbulent Times. New York: Harper and Row, 1980.

6. Ewing, David W. Do It My Way or You're Fired. New York: John Wiley and Sons, 1983.

7. Gescheidle, Randal A. Research Notes. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson AFB OH, August 1989.

8. Goodman, Paul S. Assessing Organizational Change. New York: John Wiley and Sons, 1979.

9. Gyllenhammar, Pehr G. People at Work. Reading Ma: Addison-Wesley Publishing Company, 1977.

10. Hardaker, Maurice and Bryan K. Ward. "How to Make a Team Work," Harvard Business Review, 65: 112-117 (November-December 1987).

11. Harvey, Donald F. and Donald R. Brown. An Experiential Approach to Organization Development (Third Edition). Englewood Cliffs NJ: Prentice Hall, 1988.

12. Hersey, Paul and Kenneth H. Blanchard. Management of Organizational Behavior (Fourth Edition). Englewood Cliffs NJ: Prentice Hall, 1982.

13. Jacobs, David E. Initiation, Adoption, and Implementation of Administrative Innovation in the Air Force: A Case Study. MS Thesis, AFIT/GLM/LSR/88S-38. School of Systems and Logistics, Air Force Institute
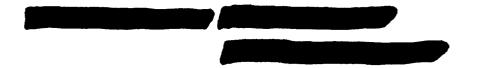
of Technology (AU), Wright-Patterson AFB OH, September 1988 (AD-A202654).

14. Jennings, Kenneth R., Assistant Professor of Management and Organizational Behavior, School of Systems and Logistics, Air Force Institute of Technology. Personal Interview. Wright-Patterson AFB OH, 24 August 1989.

15. Kami, Michael J. Trigger Points. New York: McGraw Hill Company, 1988.

16. Kotter, John P. and Leonard A. Schesinger. "Choosing Strategies for Change," Harvard Business Review, 54: 106-113 (March-April 1979).

17. Lawler, Edward E. High-Involvement Management. San Francisco: Jossey-Bass Publishers, 1986.

18. Lawton, Robin L. "Creating a Customer-Centered Culture for Service Quality," Quality Progress, 22: 34-36 (May 1989).

19. March, James G. "Footnotes to Organizational Change," Administrative Science Quarterly, 26: 563-577 (December 1981).

20. Mitchell, T.R. and William G. Scott. Organization Theory: A Structural and Behavior Analysis. Homewood IL: Richard D Irwin, Inc., 1976.

21. Nutt, Paul C. "Tactics of Implementation," Academy of Management Journal, 29: 230-261 (June 1986).

22. Pearson, Andrall E. "Tough-Minded Ways to Get Innovative," Harvard Business Review, 66: 99-106 (May-June 1988).

23. Perry, Linda. "The Quality Process," Modern Healthcare, 18: 30-34 (April 1, 1988).

24. Persico, John, Jr. "Team up for Quality Improvement," Quality Progress, 22: 33-37 (January 1989).

25. Peters, Thomas J. and Robert H. Waterman, Jr. In Search of Excellence. Cambridge: Harper and Row, 1982.

26. Rogers, David J. Waging Business Warfare. New York: Charles Scribner's Sons, 1987.

27. Shea, Gordon F. Building Trust in the Workplace. New York: AMA Membership Publications Division, 1984.

28. Stein, Barry A. _Quality of Worklife in Action_. New York: AMA Membership Publications Division, 1983.

# VITA

First Lieutenant Ronald D. Taylor ███████████████

███████████████████████ He graduated from High School in

Anchorage, Alaska in 1979 and enlisted in the Air Force that

same year. Lieutenant Taylor was first assigned to Ramstein

AB, West Germany, as an Inventory Management Specialist with

a follow-on assignment to Moody AFB, Georgia in the same

career field. Following completion of a Bachelor of Science

degree in Business Administration from Troy State University

in 1985, and a Master of Science degree in Management

Science in 1986 from Troy State University, Lieutenant

Taylor attended the Air Force Officer Training School. In

January of 1986, Lieutenant Taylor was assigned to Reese

AFB, Texas, where he served as Chief, Operations Support

Branch, Base Supply until entering the Air Force Institute

of Technology in May, 1988.

| REPORT DOCUMENTATION PAGE | Form Approved OMB No. 0704-0188 |
|---|---|

| 1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED | 1b. RESTRICTIVE MARKINGS |
|---|---|

| 2a. SECURITY CLASSIFICATION AUTHORITY | 3. DISTRIBUTION/AVAILABILITY OF REPORT |
|---|---|
| 2b. DECLASSIFICATION/DOWNGRADING SCHEDULE | Approved for public release; distribution unlimited. |

| 4. PERFORMING ORGANIZATION REPORT NUMBER(S) AFIT/GLM/LSR/89S-66 | 5. MONITORING ORGANIZATION REPORT NUMBER(S) |
|---|---|

| 6a. NAME OF PERFORMING ORGANIZATION School of Systems and Logistics | 6b. OFFICE SYMBOL (If applicable) AFIT/LSR | 7a. NAME OF MONITORING ORGANIZATION |
|---|---|---|

| 6c. ADDRESS (City, State, and ZIP Code) Air Force Institute of Technology Wright-Patterson AFB OH 45433-6583 | 7b. ADDRESS (City, State, and ZIP Code) |
|---|---|

| 8a. NAME OF FUNDING/SPONSORING ORGANIZATION | 8b. OFFICE SYMBOL (If applicable) | 9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER |
|---|---|---|

| 8c. ADDRESS (City, State, and ZIP Code) | 10. SOURCE OF FUNDING NUMBERS | | | |
|---|---|---|---|---|
| | PROGRAM ELEMENT NO. | PROJECT NO. | TASK NO | WORK UNIT ACCESSION NO. |
| | | | | |

11. TITLE (Include Security Classification)

See Box 19

12. PERSONAL AUTHOR(S)
Ronald D. Taylor, M.S., 1st Lt, USAF

| 13a. TYPE OF REPORT MS Thesis | 13b. TIME COVERED FROM _____ TO _____ | 14. DATE OF REPORT (Year, Month, Day) 1989 September | 15. PAGE COUNT 84 |
|---|---|---|---|

16. SUPPLEMENTARY NOTATION

| 17. COSATI CODES | | | 18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) |
|---|---|---|---|
| FIELD | GROUP | SUB-GROUP | Productivity, Quality Assurance, Feedback, Control, Innovation, |
| 05 | 03 | | |
| 13 | 09 | | |

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

TITLE:   IMPLEMENTATION OF ORGANIZATIONAL CHANGE IN
         THE AIR FORCE: A CASE STUDY

Thesis Chairman:   Kenneth R. Jennings, Assistant Professor of
                   Management and Organizational Behavior

Approved for public release:   IAW AFR 190-1.

LARRY W. EMMELHAINZ, Lt Col, USAF    11 Oct 89
Director of Research and Consultation
Air Force Institute of Technology (AU)
Wright-Patterson AFB OH 45433-6583

| 20. DISTRIBUTION/AVAILABILITY OF ABSTRACT ☑ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS | 21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED |
|---|---|
| 22a. NAME OF RESPONSIBLE INDIVIDUAL Kenneth R. Jennings, Major, USAF | 22b. TELEPHONE (Include Area Code) (513) 255-4523 | 22c. OFFICE SYMBOL AFIT/LSR |

| DD Form 1473, JUN 86 | Previous editions are obsolete | SECURITY CLASSIFICATION OF THIS PAGE |
|---|---|---|

UNCLASSIFIED

The ever changing defense environment requires Department of Defense organizations to change and evolve with the mission requirements, while incurring decreased funding and manpower allocations.

This research is a study of the total quality management initiatives implemented by the Logistics Operation Center (LOC) and Material Management (MM) organizations within the Headquarters, Air Force Logistics Command. In particular, it addresses the planning tactics employed by LOC and MM when implementing major changes to the organizational structure, hierarchy, and specific areas of organizational responsibility to facilitate total quality management.

Currently, a lack of concise mission goals, objective performance evaluation tools, and organizational cohesiveness plague the most recent restructuring of both LOC and MM. Research findings indicate the need to clearly define organizational and individual roles and responsibilities, in addition to involving effected personnel in the change process.

The value of this study stems from an ongoing research effort at the Air Force Institute of Technology. Recommendations for future research projects include: (1) an investigation of factors that create employee and/or management resistance to change; (2) an inspection of why employees respond differently to given management implementation tactics; and, (3) an investigation of specific employee motivational factors within the Air Force organization.

UNCLASSIFIED